AR 201 - 11978

Rhodia

North American Industrial Specialties Division

CN 7500
Cranbury, NJ 08512-7500
TEL: (609) 860-3068

November 30, 1999

Mr. Charles M. Auer, Director (7405)
Chemical Control Division, OPPTS
United States Environmental Protection Agency
401 M Street, Southwest
Washington, D.C. 20460

Re: HPV Challenge Program Removal Of Non-HPV Materials

Dear Mr. Auer:

Rhodia Inc. ("Rhodia") respectfully requests that the following two materials be removed from EPA's High Production Volume (HPV) list on the basis that Rhodia has concluded, with EPA's guidance, that they are properly classified as polymers, exempt from Inventory Update Rule (IUR) reporting under 40 C.F.R. § 710.26:

- Trimer of hexamethylene diisocyanate, CAS No. 3779-63-3 (Trimer)
- Biuret of hexamethylene diisocyanate, CAS No. 4035-89-6 (Biuret)

Rhodia (formerly Rhône-Poulenc Inc.) believes that it has been the sole manufacturer or importer of these materials, for the 1990, 1994 and 1998 IUR reporting periods. As a result, we believe EPA may de-list these materials from the HPV list solely based on Rhodia's substantiation.

Beginning in the early 1990s, Rhodia (then Rhône-Poulenc) began questioning the proper classification of the Trimer and Biuret materials. Similar products manufactured by other companies were described differently, leading to some unnecessary marketplace confusion. Rhodia wanted to eliminate this confusion while properly classifying the products. For several years, Rhodia material safety data sheets (MSDSs) for these materials contained an alternate description of "polymeric hexamethylene diisocyanate, CAS No. 28182-81-2," in an effort to mitigate confusion. Unfortunately, questions persisted.

Rhodia then sought EPA guidance on the nomenclature issue in order to finally resolve the matter. In response, EPA confirmed that the polymeric description (and CAS Number) for the materials is appropriate "if one's commercial intent is to manufacture a polymer." Letter from Henry P. Lau, Senior Policy Advisor, Industrial Chemistry Branch, EPA, dated February 24, 1998 (attached).

Rhodia's commercial intent has been, and remains, to manufacture polymeric material. As a result, based on EPA's guidance, Rhodia changed the description of the material and the

corresponding CAS numbers on MSDSs, labels and associated product literature, to conform to the proper polymeric description. (See, e.g., attached MSDSs).

Rhodia's interpretation, as confirmed by EPA, renders the company's 1990, 1994 and 1998 IUR reports incorrect regarding these materials, since IUR reporting is not required based on the polymer exemption cited above. We understand that EPA is not entertaining historical corrections to former IUR submissions but rather is focusing its resources on correctly updating the HPV list.

As a result, Rhodia respectfully requests EPA to de-list the above-described Trimer and Biuret materials, on the basis that they have been, and will remain, exempt from IUR reporting. Due to the imminent deadline for voluntary commitment to the HPV Challenge testing program, Rhodia assumes that EPA will agree with our request and will delete these two materials from the HPV list. As indicated above, we do not believe that any other company reported these materials in 1990, 1994 or 1998 IUR submissions to EPA.

Obviously, if EPA should for any reason disagree with this request, Rhodia would need additional time to consider voluntary testing commitments for these materials under the HPV Challenge program.

Thank you for reviewing our request. We look forward to your response. If you have any questions or require further information, please call me at (609) 860-3065.

Sincerely,

James E. Blum
Product Stewardship Manager
Industrial Specialties Division
Rhodia Inc.

Attachments

1. Tolonate HDB MSDS (5/20/99)
2. Tolonate HDT MSDS (5/20/99)
3. Letter (July 23, 1997) from C. O'Brien (Latham & Watkins) to Chemical Inventory Section (EPA)
4. Letter (February 24, 1998) from H. Lau (EPA) to C. O'Brien (Latham & Watkins)

Rhodia

TOLONATE HDB

Material Safety Data Sheet **Date Prepared:** **5/20/99 Supersedes Date:** **2/22/99**

1. CHEMICAL PRODUCT AND COMPANY DESCRIPTION

RHODIA INC.
COATINGS AND CONSTRUCTION MATERIALS
CN 7500
Prospect Plains Road
Cranbury NJ 08512-7500

Emergency Phone Numbers:
FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC (800-424-9300 within the United States or 703-527-3887 for international collect calls) or DART (The Distribution Assistance Response Team) at 800-334-7577.

For Product Information:
(609) 860-4000

Chemical Name or Synonym:
HDI HOMOPOLYMER

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER	28182-81-2	Y	> 99
HEXAMETHYLENE DIISOCYANATE (HDI)	822-06-0	Y	< 0.3

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:
pale yellow viscous liquid, odorless.

Warning Statements:
REACTS VIOLENTLY WITH COMMON MATERIALS INCLUDING WATER, ALCOHOLS, BASES AND AMINES. EYE AND SKIN IRRITANT. HARMFUL IF INHALED. POSSIBLE SENSITIZER.

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3. HAZARDS IDENTIFICATION (Continued)

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:
Irritant.

Acute Skin:
Low acute dermal toxicity. Slightly irritating. May cause allergic reaction.

Acute Inhalation:
May be harmful if inhaled. May cause respiratory tract irritation.

Acute Ingestion:
May be harmful if swallowed.

Chronic Effects:
This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:
Eye Exposure:
Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure:
In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:
Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if respiratory irritation or distress continues.

Ingestion:
If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting

 Continued on Next Page

4. FIRST AID MEASURES (Continued)

may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:
Skin contact may aggravate existing skin disease.

NOTES TO PHYSICIAN:
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

Flash Point:
170 C (338 F). Flammability Class: WILL BURN.

Method Used:
Closed cup

Flammability Limits (vol/vol%):	**Lower:**	**Upper:**
	No Data	No Data

Extinguishing Media:
Recommended: dry chemical, carbon dioxide, foam, Not recommended: water.

Special Fire Fighting Procedures:
Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool tightly closed containers exposed to fire with water.

Unusual Fire and Explosion Hazards:
Product will burn under fire conditions. Under fire conditions, toxic, corrosive fumes are emitted.

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5. FIRE FIGHTING MEASURES (Continued)

Hazardous Decomposition Materials (Under Fire Conditions):
oxides of nitrogen
oxides of carbon

Autoignition Temperature:
480 C (896 F)

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:
Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill:
Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:
Absorb with an inert absorbent. Sweep up and place in an appropriate closed container (see Section 7: Handling and Storage). Clean up spill area with a decontamining solution made up of 50% isopropanol, 45% water and 5% concentrated ammonia solution (% by weight). The solution should cover the area for at least one hour. Collect washings for disposal.

Environmental and Regulatory Reporting:
Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:
< 40 C (104 F)

Handling:
Do not get in eyes. Avoid direct or prolonged contact with skin. Store, transfer and handle under a blanket of nitrogen. Before closing partially empty containers, blanket with dry nitrogen. Replace damaged gaskets.

7. HANDLING AND STORAGE (Continued)

Storage:
Store in an area that is dry, well-ventilated, Store in tightly closed containers. Store in original container. Recommended container material: aluminum, steel, Container material to avoid: polystyrene, copper, tin.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:
These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines:
Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

HEXAMETHYLENE DIISOCYANATE (HDI)

	Notes	TWA	STEL
ACGIH		0.034 mg/cu m	
ACGIH		0.005 ppm	

Engineering Controls:
Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

Respiratory Protection:
When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against organic vapors.

Eye/Face Protection:
Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Skin Protection:
Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:
Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

(1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
(2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
(3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES (Continued)

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance:
pale yellow viscous liquid.

Odor:
odorless.

pH:
Not Applicable

Specific Gravity:
1.12 at 25 C (77 F).

Water Solubility:
reacts

Melting Point Range:
Not Available

Boiling Point Range:
220 C (428 F) at 760 mmHg

Vapor Pressure:
12 mmHg at 50 C (122 F)

Vapor Density:
Not Available

10. STABILITY AND REACTIVITY

Chemical Stability:
This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided:
extreme heat
open flame

10. STABILITY AND REACTIVITY (Continued)

moisture

Materials/Chemicals To Be Avoided:
water
strong bases
strong acids
strong oxidizing agents
polymerization initiators
alcohols
amines

The Following Hazardous Decomposition Products Might Be Expected:
Decomposition Type: thermal
oxides of nitrogen
oxides of carbon

Decomposition Type: polymerization
carbon dioxide

Hazardous Polymerization May Occur.
Avoid The Following To Inhibit Hazardous Polymerization:
same as chemicals and conditions to avoid (above)

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:
Toxicological Information and Interpretation
eye - eye irritation, 0.1 ml, rabbit.
Mildly irritating.

Acute Skin Irritation:
Toxicological Information and Interpretation
skin - skin irritation, 0.5 ml, rabbit.
Mildly irritating.
skin - sensitization, guinea pig.
Sensitizing. Data for 1,6-hexamethylene di-isocyanate.

Acute Dermal Toxicity:
Toxicological Information and Interpretation
LD50 - lethal dose 50% of test species, > 2000 mg/kg, rabbit.

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11. TOXICOLOGICAL INFORMATION (Continued)

Acute Respiratory Irritation:
No test data found for product.

Acute Inhalation Toxicity:
Toxicological Information and Interpretation
LC50 - lethal concentration 50% of test species, > 1.18 mg/L, rat.

Acute Oral Toxicity:
Toxicological Information and Interpretation
LD50 - lethal dose 50% of test species, > 5000 mg/kg, rat.

Chronic Toxicity:
This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:
No data found for product.

Chemical Fate Information:
No data found for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

13. DISPOSAL CONSIDERATIONS (Continued)

Container Handling and Disposal:
Any containers or equipment used should be decontaminated immediately after use.
Decontaminate containers with the solution given under Section 6: Cleanup and Disposal.
Containers should be crushed or punctured.

EPA Hazardous Waste - NO

14. TRANSPORTATION INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.
The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.
This product is regulated for transportation because it contains a reportable quantity of a hazardous substance found in Appendix A to 49 CFR 172.101. Depending on the amount of the hazardous substance present, certain package sizes may be exempt from the transport regulations and can be shipped as non-regulated materials. Please check the ingredient listing found in Section 2 of this MSDS to determine if the quantity of hazardous substance present in this product would be regulated in the package size being shipped.

US Department of Transportation
Hazard Class..... 9

Shipping Name:
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ID Number..... UN3082
Packing Group.... III
Labels..... CLASS 9
Emergency Guide #.... 171

15. REGULATORY INFORMATION

15. REGULATORY INFORMATION (Continued)

Inventory Status

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	P
AUSTRALIA (AICS)	Y
JAPAN (MITI)	Y
SOUTH KOREA (KECL)	Y

Y = All ingredients are on the inventory.
E = All ingredients are on the inventory or exempt from listing.
P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.
N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS

Inventory Issues:
All functional components of this product are listed on the TSCA Inventory.

SARA Title III Hazard Classes:

Fire Hazard	- NO
Reactive Hazard	- YES
Release of Pressure	- NO
Acute Health Hazard	- YES
Chronic Health Hazard	- NO

SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Ingredient	CERCLA/SARA RQ	SARA EHS TPQ
HEXAMETHYLENE DIISOCYANATE (HDI)	100 lbs	

STATE REGULATIONS:
This product does not contain any components that are regulated under California Proposition 65.

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R):

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16. OTHER INFORMATION (Continued)

2 Health Hazard Rating--Moderate
1 Flammability Rating--Slight
1 Instability Rating--Slight

National Paint & Coating Hazardous Materials Identification System--HMIS(R):

2 Health Hazard Rating--Moderate
1 Flammability Rating--Slight
1 Reactivity Rating--Slight

Reason for Revisions:

Change and/or addition made to Section 2.

Key/Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissable Exposure Limit
TWA - Time Weighted Average
STEL - Short Term Exposure Limit
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer
ND - Not determined
RPI - Rhone-Poulenc Established Exposure Limits

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 24 1998

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Claudia M. O'Brien
Latham & Watkins
1001 Pennsylvania Ave., N.W.
Suite 1300
Washington, D.C. 20004-2505

RE: IC-5391

Dear Ms. O'Brien:

This letter is in response to your written inquiry of July 23, 1997 concerning nomenclature for certain isocyanate derivatives. You specifically requested guidance on the proper chemical name to describe the "reaction product of 1 mole of hexamethylene diisocyanate ("HDI", CAS# 822-06-0) with 3 moles of water", and indicated that certain suppliers of this type of product have used CA Index nomenclature to represent the substance as either the biuret of hexamethylene diisocyanate (HDI) or the homopolymer of HDI.

The following Agency guidance will serve to confirm the nomenclature policy information you received over the phone on September 29, 1997 from Dr. Kent Anapolle of the Industrial Chemistry Branch.

To begin with, as noted by Dr. Anapolle, the ratio of moles stated for the starting materials of the reaction product you describe appears to be incorrectly reversed. The 3:1 mole ratio of water to HDI shown in your letter would amount to an excess of water, whereas a reaction of 1 mole of water with 3 moles of HDI could yield the biuret that appears to be of interest. For this reason, I will assume that the subject of your inquiry is the reaction product of 1 mole of water with 3 moles of HDI.

If the manufacturer's commercial intent is to only make the non-polymeric Class 1 substance corresponding to the particular HDI biuret described in your letter (that is, a substance having one definite chemical structure and molecular formula), such that any other product components of the specified reaction of HDI and water would be considered byproducts of no commercial value, then the name "Imidodicarbonic diamide, N,N',2-tris(6-isocyanatohexyl)-" [CAS Registry Number (CASRN): 4035-89-6] should be used.

Alternatively, if one's commercial intent is to manufacture a polymer or oligomer of HDI (where an oligomer, if formed, is intended to be a Class 2 substance by virtue of not having just one chemical structure and molecular weight), the substance should be described as "Hexane, 1,6-diisocyanato-, homopolymer" [CASRN: 28182-81-2]. As long as the commercial intent is to have a variable molecular weight oligomer or polymer, the homopolymer name is appropriate whether or not water is used as a co-reactant. The reason that the use of water does not matter in this instance is that, when naming a polymeric substance, water as a co-reactant is generally ignored (except as a post-treatment for the purpose of hydrolysis, in a multi-step reaction).

It could also be possible that a person intends to manufacture a related substance other than the HDI biuret or homopolymer. For example, if a manufacturer's commercial intent is to produce a non-polymeric substance that is either not the HDI biuret or only partly the biuret, then the Agency would need to carefully review all of the reported chemical identity information in order to determine the appropriate chemical identity and nomenclature for the product substance.

If you have any further questions on this matter, please reference the Inventory Correspondence number IC-5391 in your letter sent to the following address:

Office of Pollution Prevention and Toxics (7407)
U.S. Environmental Protection Agency
Room G-099
401 M Street, S.W.
Washington, D.C. 20460
ATTN: Chemical Inventory

Yours truly,

Henry P. Lau
Senior Policy Advisor
Industrial Chemistry Branch